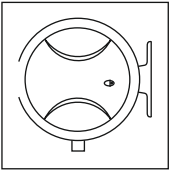


* Wired remote with LCD display enables the water heater to be installed in the loft with easy access to all controls through the remote panel.

What's in the box?

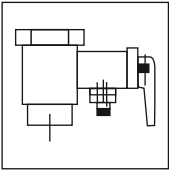
Electric
Water Heater



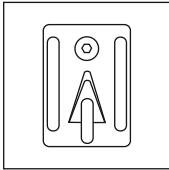
User
Manual



Relief
Valve



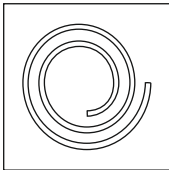
Bracket
Accessory



Remote
Control
Assembly



Discharge
Pipe



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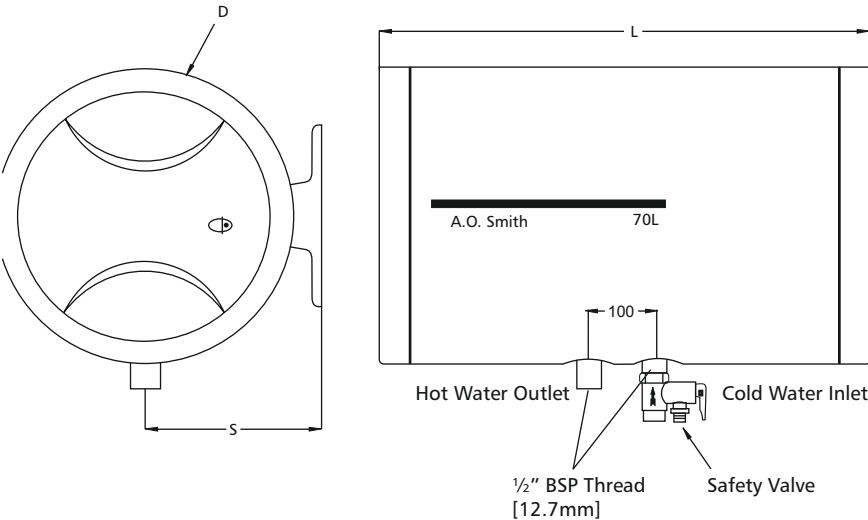
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Specifications

Type	CEWHR			
Capacity (L)	35	50	70	100
Voltage (V)/ Frequency (Hz)	220~/50	220~/50	220~/50	220~/50
Input Wattage (kW)	1/1.5/2.5	1/1.5/2.5	1/1.5/2.5	1/1.5/2.5
Current (A)	4.6/6.8/11.4	4.6/6.8/11.4	4.6/6.8/11.4	4.6/6.8/11.4
Actual standing loss [kwh/24h/45°C diff.]	0.684	0.762	0.920	1.073
Maximum standing loss [kwh/24h/45°C diff.]	1.584	1.832	2.079	2.376
Reheating time for 50°C rise (in mins)	67	96	144	192
Temperature range (°C)	35-75 ± 5	35-75 ± 5	35-75 ± 5	35-75 ± 5
Rated water pressure	N/cm ²	80	80	80
	Water head (metres)	80	80	80
Net Weight (Kg)	22	24	31	34
L (mm)	760	880	905	1070
S (mm)	217	217	250	250
D (mm)	Ø 395	Ø 395	Ø 463	Ø 463

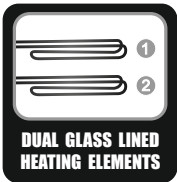
A. O. Smith reserves the right to make product changes or improvements at any time without notice.

Physical Characteristics



Key Features

Dual Glass Lined Heating Elements increases the life of the heating element and heats water faster



Dual Glass Lined Heating Elements provide extended life to the water heater by preventing Scale Formation on the element surface. They help in quick water heating. In the event of one glass lined element failing, the other element ensures that water gets heated. It is recommended in all areas that have hard water.

Blue Diamond® Glass Lining offers the best protection against tank corrosion



The new Blue Diamond® technology with enhanced levels of zircon increases the life of the water heater. The lining is proven to be stronger and more water-resistant than any other in the industry.

Electronic Controls & Display helps set temperature and power options



The colored LED module displays actual temperature and set temperature. It also displays off-peak, timing, clock and power modes to enable you set these options.

Anode Rod Protects the tank from corrosion



The tank has an anode rod system with a stainless-core that is designed to protect the tank from corrosive elements. The system uses a special cathodic action to fight the corrosive elements which in turn prolongs the life of the water heater.

Safety Valve helps to relieve and discharge water in case pressure or temperature exceeds preset limit



This water heater has a temperature and pressure safety valve. This valve is designed to automatically relieve and discharge water incase the pressure or temperature overshoots the preset limits

Safety Features

High temperature limit protection switch

The water heater employs a high temperature limit protection switch which is reset by manual operation. The switch rapidly cuts off the phase and neutral line simultaneously to guarantee safety in case the water heater happens to be faulty and the water temperature exceeds the highest temperature preset in the thermostat. If this happens, please call the Customer Care Center.

General Safety Information

We strongly suggest that you read this manual thoroughly before installation and use of this water heater. Be sure to keep the manual for future reference.

- A. O. Smith Company will not be liable for any damages resulting from incorrect installation of this water heater. Only professionals recognized by A. O. Smith should be allowed to install this water heater for you.
- Be sure to shut off the power before carrying out any repair and maintenance on this water heater. Non-professionals should not be allowed to adjust or repair this water heater.
- Hot water may cause serious scalding injury. Hot water must be mixed with cold water before usage.
- The water heater may produce steam or extremely hot water if operated without enough water inside the tank. Make sure the water heater is full of water. Any part supposed to be immersed in water needs to be examined or repaired by qualified professionals before further use.
- In case of a damage to the power cord of the water heater, only manufacturer's customer service personnel or similar professionals are allowed to replace it. All key parts of this water heater are electrically insulated and have heat-insulated layers, so users may be assured while using it.
- The water heater is equipped with a pressure-relief safety valve. It is prohibited to change the installation position of the pressure-relief safety valve without permission, or block its outlet. The pressure-relief safety valve must be equipped with a discharge pipe, which is facing downward without any knot and connected directly to the floor drainage.

Attention: If the content in the manual is not strictly abided by, fire may be caused which may lead to property loss, personal injuries or death.

Warning: A power socket cannot be used unless it is securely grounded, and it is forbidden to use a water heater without being securely grounded. Floor drain openings with good drainage conditions should be arranged near the water heater.

Installation Instructions

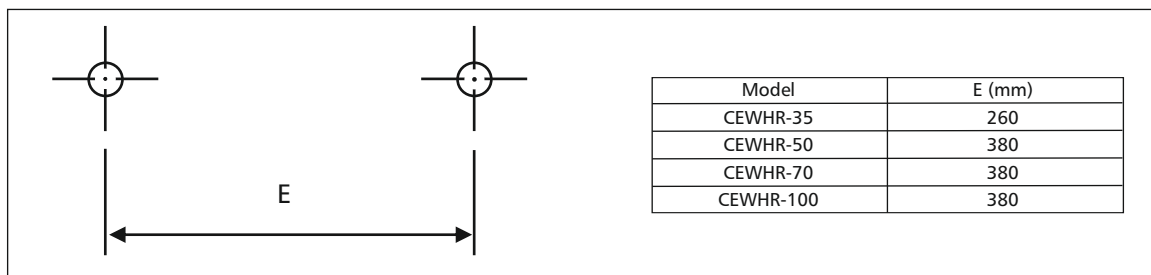
Mounting

Place the heater near an electric power socket, floor drain and the terminal for hot water utilization. There must be a floor drainage, since there may be water flowing out of the pressure relief port of the press relief safety valve, when the water heater is being used. Be sure the inlet and outlet of the heater are on the bottom and are facing downward. It is forbidden to install the water heater vertically.

Warning: Be sure to install the water heater with the provided mounting hangers. The heater can be hung up only after it is certain that the mounting hangers are solidly mounted. Serious damage and harm may result if the heater falls off from the wall.

Installation Procedure and Cautions

- Make sure that the wall can withstand fourfold weight of a fully filled water heater.
- To locate the fixing bolts, make sure that there is a clearance of no less than 300 mm between the right side of the heater and the wall in order to open up the plastic service cover for maintenance or reset the high limit when necessary. In case, the water heater is embedded in the ceiling, the right side ceiling of the heater should be removable so as to remove the plastic service cover for maintenance when necessary.
- Use a drill bit with a diameter of 10 mm to drill 2 holes at least 90 mm deep in the wall. The 2 holes should be in line horizontally. The distance between the 2 holes is as shown in the below diagram.

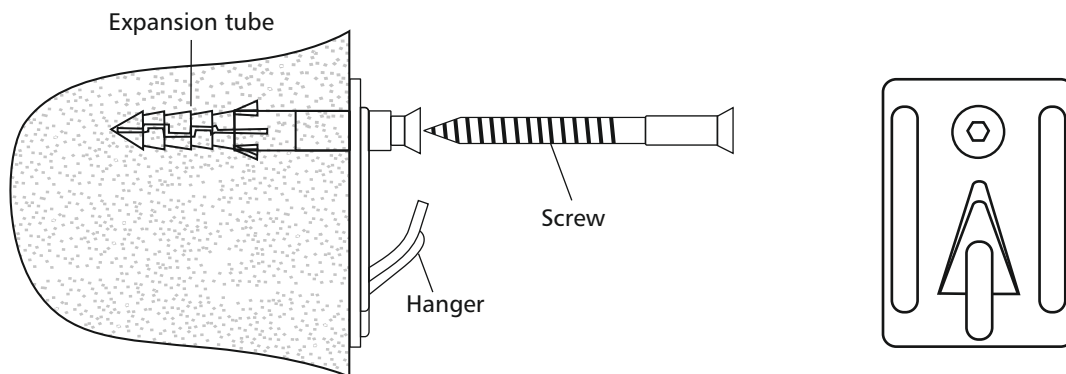


- Use the inner hex wrench and expansion bolts to mount and fix the hangers on the wall. Refer to the first diagram on next page.

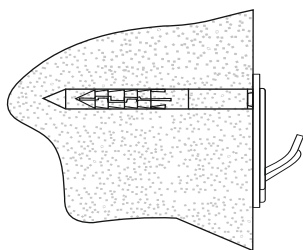
Particular Cautions

- The nylon expansion tube must be put through the hole of the hanger first, before being inserted into the drilled hole.
- Only special hex wrench should be used to drive the bolt into the nylon expansion tube. Once, the bolt head has pressed against the hanger plate and made the hanger unmovable, stop further tightening to prevent damaging the nylon tube.

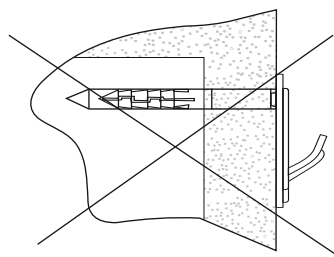
- Hang the water heater on the wall by placing the 2 holes of the mounting bracket onto the hanger hooks. Move the water heater downward to ensure that the square holes are pressing on the root of the hanger hooks and confirm water heater is fixed steadily.



Caution: The provided mounting hangers can only be used on solid cement wall. Inappropriate installation may result in heater falling down. See the diagram below for details.



Correct



Wrong

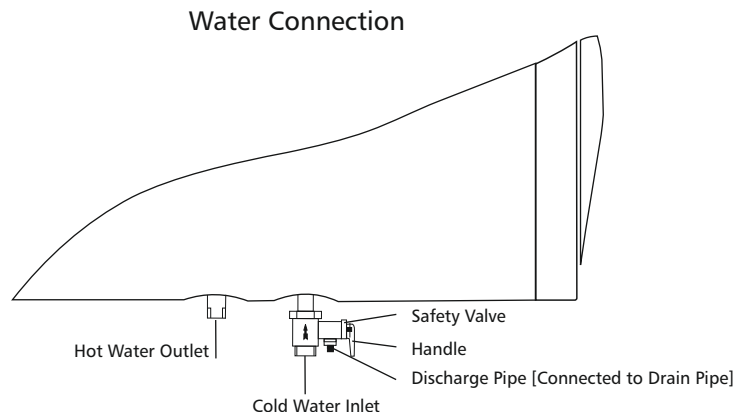
Plumbing

Connect the pressure-relief safety valve in the water inlet (on the side of the blue plug cap) in the direction of the arrow pointing in the direction of water flow (i.e. pointing to the water heater). Connect hot water pipe to the outlet (on the side of the red plug cap). See above content on safety valve for the installation of the safety valve. In case, the water pressure is close to over the safety valve rating (0.8Mpa), please install a pressure-reducing valve in the inlet piping with sufficient distance from the heater. Refer to the below diagram for water connection details.

Attention: Make sure a suitable tape thread sealant is used for all connections to prevent leakage. Meanwhile, the safety valve must not be excessively tightened so as to prevent damage.

1. Make necessary plumbing with reference to the below diagram.
2. It is recommended that suitable nylon braided hoses should be used. These hoses should have a minimum pressure rating of 8 Bar and should be compatible for hot water applications.
3. Connect the cold water pipe to the inlet [blue].
4. Connect the hot water pipe to the outlet [red].

Attention: Make sure a suitable sealing tape is used for all connections to prevent leakage. Meanwhile, the safety valve must not be screwed too tight to prevent damage.



Control Box Connection

If the remote wire is to be installed on the wall by wire slot or wire clip, the control box will be installed on the surface of the wall by box hanger which has been fixed on the wall previously. If the remote wire is prepared to be embedded into the wall through wire tube, the installation operation will be as follows:

- 1 First, unscrew the four screws in the box and open the box.
- 2 Second, take out the remote wire and pull it out from the wire terminal.
- 3 Third, put the wire through the wire tube in the wall (take care so as not to damage the eight-core plug and wire) and plug the eight-core wire terminal into the controller.
- 4 Lastly, close the control box cover with screws and fix it onto the pre-installed fixed board on the wall.

Electrical Power Wiring

The power cord and plug have been equipped and connected well with this water heater. Just plug it into a corresponding socket.

Attention: Please make sure the water heater and the socket are appropriately grounded. A separate socket should be used. Moreover, the socket must be of a good quality to ensure proper contact with the plug. The rated current of the socket should not be less than 15A.

Water Filling

Once the piping has been connected, open the cold water valve and hot water faucet to fill the water heater and drain the air out until water flows continuously from hot water faucet. This indicates that the heater is full. Then, close the hot water faucet and check all the connections to see if there is any leakage. If it leaks, drain the heater completely, repair the leaking joint and then re-fill the heater.

Operation Instructions

Please check whether the water heater is filled with water and whether the power plug is plugged in place before using the water heater.

1 On/Off

Press the "On/Off" button to enter the "On" status as shown in Fig. 1. Press the button again to enter the "Off" mode.

System Default Setting: The default temperature setting is 70°C.

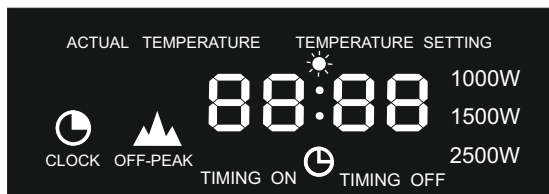


Fig. 1

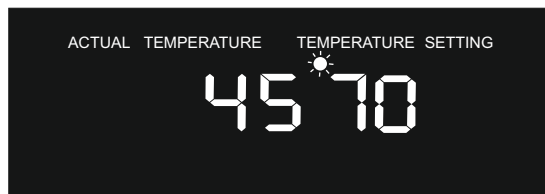


Fig. 2

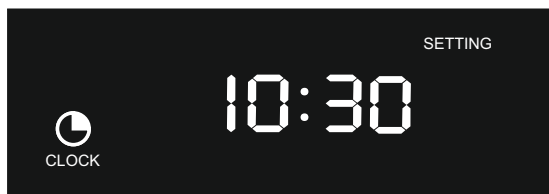


Fig. 3

2 Temperature Setting

In the working status of the controller, press "▲" or "▼" button, the "Temperature Setting" and the current set temperature will flash in the temperature window. The set temperature increases/decreases by 1°C for each time the "▲" or "▼" button is pressed. If the button is pressed without pause, the setting temperature increases/decreases continuously. If the button is released, it will exit the temperature setting mode after the flashing stops.

In the working mode of the controller, the screen will display the actual water temperature and setting temperature first (as shown in Fig. 2). Ten seconds later, it will display the characters "Clock" and the time (as shown above in Fig. 3) both displays will alternate after 10 seconds.

Caution: Hot water exceeding 50°C can produce scalding injury. Particular care should be taken when the temperature is set over 50°C for the safety of your family, especially children.

3 Clock Setting and View

(1) Clock Setting: First press the "Clock Setting" button for 3 seconds to enter clock setting mode (as shown in Fig. 4). The hour field will flash first. Set the numbers by pressing "▲" or "▼" button. The set hour will increase/decrease by 1 for each time the "▲" or "▼" button is pressed. During flashing period, press the clock button again to enter clock "Minute" setting mode, the minutes display will flash. Set the numbers through "▲" or "▼" button. If the button is pressed without pause, the numbers will increase/decrease continuously. The hour number setting range is between 0-23 and the minute number setting range is between 0-59.

- (2) Clock View: You can know the time by pressing the "Clock Setting" button in power on mode. The time will display for ten seconds, then return to temperature display mode.

4 Timing Option

When in the "Off-peak" or "Timing" mode, you can enter the "Time Setting" mode by keeping pressed the "Off-peak" or "Timing" button for 3 seconds. You cannot set the time in the "Off-peak" or "Timing" mode.

Timing On mode

In the "Timing" mode, press and hold the "Off-peak" or "Timing" key for 3 seconds. The display "Timing On" flashes and the "Timing On" time is displayed. The "Timing On" hour flashes first; press the "▲" and "▼" key to set the hour field in "Timing On". The hour field can be set to any value from 0 to 23. Press "Off-peak" or "Timing" button again to set the minutes field. The display will flash "Timing Minute". The minutes field can be set circularly to any value from 0 to 59 (as shown in Fig. 5).

Timing Off mode

Press the "Off-peak" or "Timing" button again to exit the "Timing On" mode and "Timing Off" flashes indicating you are now in the "Timing Off" mode and the "Timing Off" values will flash.

The method for setting "Timing Off" is same as for "Timing On" detailed above (as shown in Fig. 6).

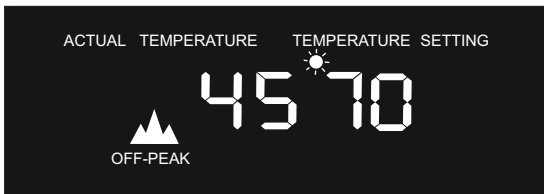


Fig. 4

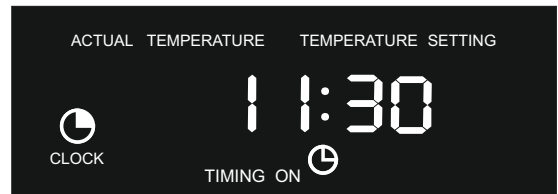


Fig. 5

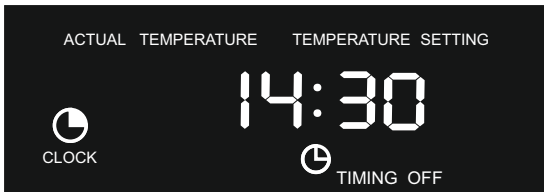


Fig. 6

5 Timing Setting View

In "Timing", "Off-peak" or "Timing" plus "Off-peak" modes, by pressing the "Off-peak" or "Timing" button, you will be able to break the alternated display of temperature and time and enter the "Off-peak" or "Timing Setting" view.

- (1) If the clock is not in the "Off-peak" or "Timing Setting" mode, it displays "Timing On" and the value for "Timing On" is displayed for several seconds.
- (2) If the clock is in the "Off-peak" or "Timing Setting" mode, it displays "Timing Off" and the value for "Timing Off" is displayed for several seconds.

6 Power Option

Press the "Power Option" button to choose input mode alternately between "Low Power" (1000 W), "Half Volume Quickly" (1500 W) and "Full volume Quickly" (2500 W) in the normal working status. The system default is "Low Power".

7 Instant Heating

At start-up without heating, heating begins and LED heating icon turns on after "Instant Heating" button is pressed. The heating continues until the set temperature is reached. You can exit the heating mode by pressing the "Instant Heating" button again during the instant heating mode.

8 Electric Leakage Detection

The Ground Fault Circuit Interrupter (GFCI) cuts off the power completely when an unsafe electrical condition is detected, during which the "Reset On" button jumps up, the power indicator lights turn off or turn from green to orange. If the normal condition cannot be re-attained by pressing the "Reset On" button, you should call the Customer Care Centre immediately.

Caution: Users should regularly test whether the functions of the GFCI are normal. The method of testing is as follows: When the power indicator light turns on (green), press down the "Test Off" button, the power indicator will be turned off, then press "Reset On" button again. The power indicator (green) will be turned on, which indicates that the GFCI is in good condition, otherwise there is a failure in the GFCI and service should be called for immediately.

9 Safety Valve Function Detection

During the course of heating, it is normal for the outlet of the safety valve to drip. Under normal conditions, the handle of the safety valve should be opened regularly (move the handle of the pressure relief valve) to eliminate calcium carbonate. If the water is flowing, then the safety valve is operating normally. Otherwise, please call the Customer Care Centre.

Repair and Maintenance

Declaration: Only qualified service technicians are allowed to repair and maintain this water heater. Incorrect operations may cause serious injuries or property loss.

Warning: Electric shock
This appliance must be unplugged before being opened up or repaired.

Attention: Before calling for repair service, please use the Troubleshooting List on the next page as a guide to correct apparent problems.

Maintenance

- When it is necessary to drain the water heater, first close the inlet valve, move the handle of the pressure relief safety valve and release the nut connected with the water output adapter of the container. This will ensure that the water flows out from the flow guild pipe.
- Clean water tank periodically to get rid of scale.

Step by step guide:

- 1) Shut off power input.
- 2) Remove pressure-relief safety valve and water inlet.
- 3) Connect water outlet to tap water to introduce the water; connect original water inlet to floor drain with a pipe to discharge the water.
- 4) Fully open the water inlet valve to wash the tank with flowing water until the water flowing out of the tank becomes clean.
- 5) Re-connect water inlet and outlet according to diagram (refer to diagram for Wiring Diagram of CEWHR, Cylinder Electric Wall Hung Water Heater with Remote Control) and start to use after leakage test is passed.

Caution: Water discharged could be very hot, please take care so as not to get scalded.

Troubleshooting

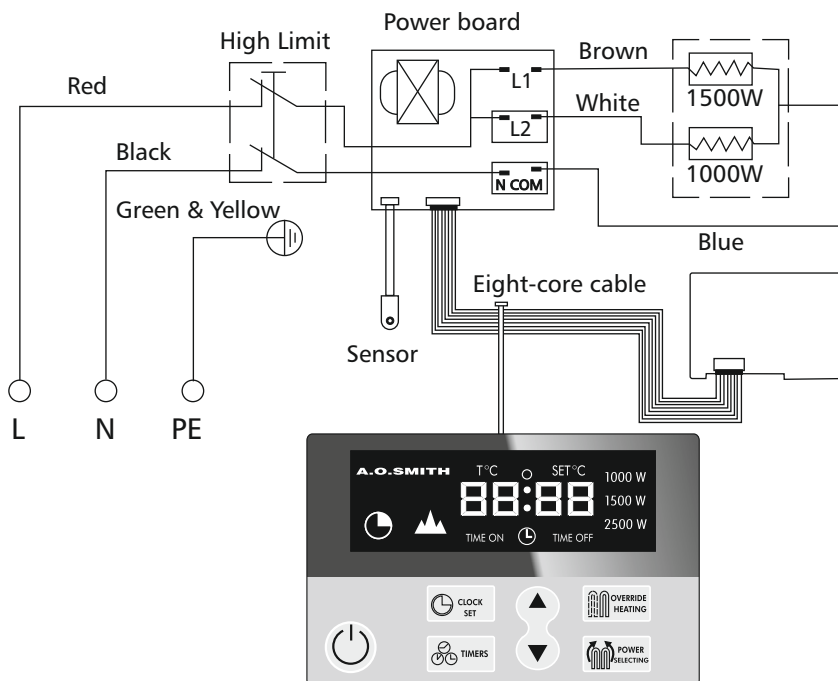
Problem	Possible Cause(s)	Solution
No display No hot water	Heater is not plugged in	Plug in the heater
	No power supply in power socket on the wall	Check the power socket
	Control circuit or internal wiring error	Call Customer Care Center
No display Water temperature is too high	High limit trips	Call Customer Care Center
	Power board damaged	Call Customer Care Center
Display, no hot water	Heating element(s) breakdown or internal wiring error	Call Customer Care Center
Piping connection leakages	Connection not sealed	Re-connect piping, be sure to use tape thread sealant
Leakage	Leakage in tank or other parts	Shut off power immediately and Call Customer Care Center
Display error code "E1"	Temperature sensor circuit short or open	Call Customer Care Center
Display error code "E3"	Extra high temperature	Call Customer Care Center
Display error code "E5"	Low voltage protection (Less than 176 V)	Call Customer Care Center
"Rest On" button on the plug jumps up and can't be restored	The water heater itself or outside grounding system malfunction	Shut off the power and Call Customer Care Center

Caution

- Ensure the power of the water heater matches the electricity meter capacity and the power wiring before the installation of the water heater.
- The water heater must be grounded securely; it is not advisable to connect the ground line to the neutral line and the tap water pipe.
- In case, the safety valve for temperature and pressure has been mounted by manufacturer, do not change the installation without permission or get its outlet obstructed.
- Hot water above 50°C may result in scalding injury. Be sure to feel the temperature of the water with your hand and adjust the temperature accordingly by introducing the cold water, before using the hot water.

Wiring Diagram

Wiring Diagram of CEWHR, Cylinder Electric Wall Hung Water Heater with Remote Control



Jurisdiction

The courts of competent jurisdiction at Bangalore, Karnataka shall have exclusive jurisdiction over all matters arising out of any disputes in relation to the product.

Jaquar Mercantile

Customer Care Mailing Address

306, Udyog Vihar Phase - 2, Gurgaon, Haryana - 122016

Customer Care Network

Zone	Branch	Customer Care Number
Central	New Delhi	011.3300.4455
	Jaipur	0141.3300.4455
	Lucknow	0522.3300.4455
	Bhopal	0755.3300.4455
	Raipur	0771.3300.4455
	Patna	0612.321.5435
North	Ludhiana	0161.3300.4455
	Chandigarh	0172.3300.4455
	Jammu	0191.247.0396
	Dehradun	0135.329.6820
East	Kolkata	033.3300.4455
	Siliguri	0353.3300.4455
	Ranchi	0651.3300.4455
	Bhubaneswar	0674.3300.4455
	Guwahati	0361.246.3051
West	Mumbai	022.3300.4455
	Pune	020.3300.4455
	Ahmedabad	076.3300.4455
	Surat	0261.3300.4455
	Goa	0832.322.4483
	Nagpur	0712.325.4602
South	Bangalore	080.3300.4455
	Chennai	044.3300.4455
	Hyderabad	040.3300.4455
	Cochin	0484.3300.4455

e-mail: service@jaquar.com



A. O. Smith India Water Heating Private Limited,

Plot No. 300, Phase - 2, KIADB Industrial Area, Harohalli, Kanakapura Taluk, Ramanagara Dist. - 562 112, Karnataka, India

Website: www.aosmithindia.com